

CLAIMS

What is claimed is:

1. An apparatus for straightening a propeller drive shaft installed in a lower unit/drive assembly, the apparatus comprising:

a linkage configured to securely grip the bent propeller drive shaft;

an extension module configured to exert a force against a portion of the lower unit/drive assembly and a portion of the linkage, wherein the linkage is configured to transfer the force to the bent propeller drive shaft, and wherein the propeller drive shaft is bent in the direction of the force.

2. The apparatus of claim 1, wherein the linkage includes:

a link member having an upper portion and a lower portion;

a headpiece coupled to the upper portion of the link member; and

a footpiece coupled to the lower portion of the link member.

3. The apparatus of claim 2 wherein the linkage further comprises:

an opening defined between a lower surface of the headpiece and an upper surface of the link member, wherein the lower surface of the headpiece forms an upper gripping surface and the upper surface of the link member forms a lower gripping surface, and wherein the propeller drive shaft is secured between the upper and lower gripping surfaces.

4. The apparatus of claim 2, wherein the headpiece is an inverted U-shaped piece that is disposed over an end of the link member, the headpiece and link member each having a pair of axially aligned bores and wherein the headpiece is oriented such that the bores of the headpiece are axially aligned with the bores of the link member and wherein the headpiece is coupled to the link member via a fastener extending through the axially aligned bores.

5. The apparatus of claim 4, wherein the headpiece is rotatably coupled to the link member via the fastener.

6. The apparatus of claim 2 wherein the footpiece is a U-shaped piece that includes a pair of axially aligned bores, and wherein the link member includes a pair of axially aligned bores, and wherein the footpiece is coupled to the link member via a fastener extending through the axially aligned bores, and wherein the footpiece has an upper surface configured to receive the extension module thereon..
7. The apparatus of claim 6, wherein the footpiece is rotatably coupled to the link member via the fastener.
8. The apparatus of claim 2 wherein the headpiece has an arcuate upper portion.
9. The apparatus of claim 1, further comprising a dial indicator disposed at the bottom of the propeller drive shaft and operative to sense the variation in the circumference of the propeller drive shaft.
10. The apparatus of claim 9, wherein the propeller drive shaft is securely gripped within the link member oriented such that the point of greatest variation of the propeller drive shaft is located at the bottom of the propeller shaft.
11. The apparatus of claim 1, wherein the extension module is a hydraulic ram.
12. The apparatus of claim 1, wherein the extension module is a pneumatic ram.
13. The apparatus of claim 1, wherein the extension module is a mechanical jack.
14. The apparatus of claim 1, wherein the portion of the lower unit/drive assembly pushed against by the extension module is the lower surface of the cavitation plate of the lower unit/drive assembly.
15. The apparatus of claim 1, wherein the portion of the lower unit/drive assembly pushed against by the extension module is the lower surface of the boat.